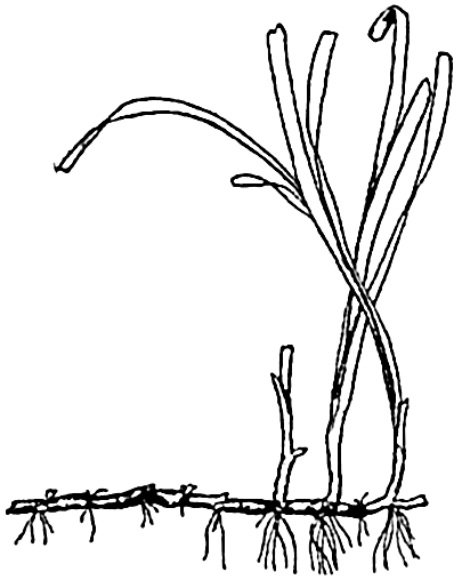
Eelgrass



We measure eelgrass to explore how underwater meadows affect local chemistry, and to see how eelgrass responds to climate change.
Use: Quadrat, sewing tape

Step one: Stand beside the sensor in eelgrass and toss quadrat to land randomly within 3m.

Step two: Count the number of eelgrass shoots within the quadrat. Count only shoots that emerge from ground within the quadrat. Do not count shoots from outside or under the quadrat.

Step three: Randomly select a shoot within the quadrat, and use sewing tape to measure its length, from the ground to the tip of the longest leaf. Repeat for three shoots within quadrat.

Repeat all steps for three separate quadrats and record on data sheet.

Shellfish reproduction

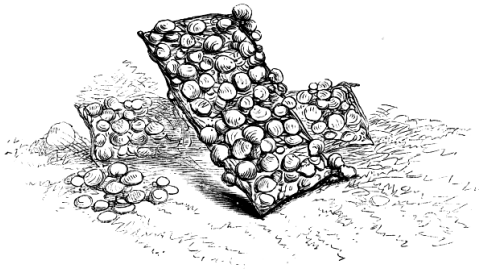
We count juvenile shellfish to see whether climate change and ocean acidification are changing the timing and success of shellfish reproduction, and to identify possible refuge sites.
Use: Three clean tiles, plastic bag, cloth, tile label, rubber band or zip tie

Step one: Remove rubber band or zip tie from vertical dowel near the sensor. Collect the deployed tiles and stack them in plastic bag with a layer of cloth between each tile. Remove PVC spacers as you go.

Step two: Record the red numbers written on the tiles you've collected on the data sheet.

Step three: Set three clean tiles onto dowel, with PVC spacers in between tiles. The glazed surface of each tile should face up. Place rubber band or zip tie back on dowel to secure tiles.

Step four: Place a label with the date, site, and eelgrass or unvegetated (bare) in plastic bag with tiles.



OYSTER-TILES.

Repeat all steps twice: once at the eelgrass station, and again at the unvegetated station. Store plastic bag with tiles in a freezer as soon as possible.

Native oysters

We've set out Olympia oysters across ANeMoNe to study restoration suitability at different sites, and the potential of eelgrass to improve oyster survival and growth.
Use: Diagonal pliers, sewing tape, zip ties

Step one: There are two cages containing six oysters apiece at each station. Open one end of a cage by clipping zip tie(s) with diagonal pliers.

Step two: Gently remove oysters. Measure and record the length in millimeters of each living oyster in its longest dimension with sewing tape. Do not measure empty shells.

Step three: Gently return living oysters and empty shells to cage, and thoroughly reseal with zip tie(s).

Repeat all steps for four cages: two at the eelgrass station, and two at the unvegetated (bare) station and record on data sheet.

Sensors

Our sensors measure the progress of climate change and ocean acidification, and uncover the diversity of conditions in our region.
Use: Cloth, wooden scraper, sponge, pipe cleaner, q-tips

Step one: Rinse everything in surrounding seawater, and then assess rope, buoys, sensor frame, and exterior of sensors. If light fouling is present anywhere, wipe away with cloth. For tougher fouling, use wooden scraper or sponge as necessary.

Step two: Assess each sensor head:

-- pH sensor: examine recessed area at black end of sensor. If light fouling is present, wipe away very carefully using cloth or q-tips.

-- Dissolved oxygen sensor: examine surface on black end of sensor. If light fouling is present, wipe away very carefully using cloth or q-tips.

-- Conductivity sensor: examine the five holes and interconnecting channels. If light fouling and/or blockage is present, use pipe cleaner or q-tips to clear it.

-- Chlorophyll sensor [unvegetated station only]: examine surfaces inside the black end of sensor. If light fouling is present, wipe away using pipe cleaner or q-tips.

Repeat all steps twice: once at the eelgrass station, and again at the unvegetated station.